Comments on the proposed conservation of *Trichia* Hartmann, 1840 (Mollusca, Gastropoda), and the proposed emendation of spelling of TRICHIINAE Ložek, 1956 (Mollusca) to TRICHIAINAE, so removing the homonymy with TRICHIIDAE Fleming, 1821 (Insecta, Coleoptera)
(Case 2926; see BZN **57**: 17–23, 109–110, 166–167)

(1) David Heppell
RR10, 1293 Gower Point Road, Gibsons, B.C., Canada V0N 1V3

I support the proposal by Edmund Gittenberger to conserve the name *Trichia* Hartmann, 1840 in Mollusca. Contrary to the statement by Holthuis that the genus is not of any importance in applied science (BZN **57**: 109–110, June 2000), the common *Trichia striolata* (Pfeiffer, 1828), mentioned in para. 3 of the application, is known in Britain as the 'strawberry snail' because of its pest status in strawberry fields and generally in gardens, having been widely spread by human activity.

After a period of instability because of uncertainty about its nomenclatural status, the use of *Trichia* as the name of the gastropod genus has stabilized during the last four decades. Watson (1922, p. 278) defended *Trichia* against *Capillifera* Honigmann, 1906 (p. 190, a replacement name for *Trichia* Hartmann), which had been favoured by Gude & Woodward (1921). Then, after the use of the name *Trochulus* 'Chemnitz, 1786' for the same genus by Lindholm (1927), the key papers in which the validity of *Trichia* was re-established were Boettger (1928), Watson (1943, pp. 66–67) and Forcart (1958). Their arguments, however, have been undermined by the subsequent inclusion of Article 11d in the 1964 Code (Article 11.6.1 of the current Code) and by the discovery of the earlier date of publication for the brachyuran homonym *Trichia* de Haan, 1839 (paras. 5 and 1 respectively of the application). As stated in the application, the junior synonym *Zalasius* Rathbun, 1897 has had considerable usage for the few, rare species assigned to the crab taxon and that name is acceptable to carcinologists working with it.

Gittenberger (para. 3) gave the type species of *Trichia* Hartmann, 1840 as *Helix hispida* Linnaeus, 1758 by subsequent designation by Herrmannsen (1849). This is probably historically correct but is contrary to the conclusion of Boettger (1928, p. 2) that the type species is *T. filicina* Hartmann, 1841 by monotypy. This conclusion has been accepted by several later authors (for example, Likharev & Rammel'meier, 1952, p. 448; Forcart, 1958, who synonymized *T. filicina* with *T. plebeia* (Draparnaud, 1805)). Hartmann's work was published in eight Hefte between 1840 and 1844 and the correct type fixation depends on whether p. 41 (on which the genus and the new nominal species *T. filicina* were described) was published before or after p. xiii (on which the nominal species *T. hispida* and *Helix sericea* Draparnaud are mentioned). I discussed in detail (Heppell, 1966) the question of the relative dates of Hartmann's work and consequent effect on the type fixation and concluded, from available evidence, that p. xiii was published not in 1844 (as believed by Boettger) but in 1840, in which case Herrmannsen's (1849) designation is valid. It must be admitted, however, that a certain amount of doubt remains and I believe it would be better if the matter were resolved by the Commission setting aside all previous fixations and ruling under the plenary power that the type species of *Trichia* Hartmann is *Helix hispida* Linnaeus, 1758.

Gittenberger noted (para. 8) a further homonym, *Trichia* Hong, 1981, but did not mention two other homonyms: *Trichia* Nietner, 1861 and *Trichia* Reuter, 1875. Nietner (1861, p. 3) included the new genus and species *T. exigua* under Lepidoptera in a *List of the enemies of the coffee tree and their parasites* and gave a description (p. 20) of the caterpillar and moth. Hampson (1892, p. 494) stated that the description was not recognizable, and included it under the heading 'Species formerly recorded as Indian which are omitted'. I know of no subsequent use of this name in Lepidoptera. *Trichia* Reuter (1875, pp. 81–82), monotypic for the new species *T. punctulata*, was introduced for a Texan bug (Heteroptera). The genus was renamed *Tiryus* by Kirkaldy (1903, p. 14) and both *Trichia* Reuter and *Tirgus* Kirkaldy were synonymized with *Ceratocapsus* Reuter, 1875 (MIRIDAE) by Carvalho (1958, p. 43). Both the homonyms *Trichia* Nietner, 1861 and *Trichia* Reuter, 1875 should be added to the Official Index, as should *Capillifera* Honigmann, 1906 (type species *Helix hispida* Linnaeus, 1758).

Gittenberger briefly refers to the wide use of the name *Trichia* in Myxomycetes. The existence of homonymous names in Myxomycetes and names in use elsewhere in zoology is far wider reaching than the present case and I think, therefore, that a decision must be taken with respect to *Trichia* without prejudice to other cases of homonymy. Thus I support the simple request by Gittenberger (paragraph 11 (1b)) for a ruling that *Trichia* (Mollusca) is not rendered invalid by *Trichia* (Myxomycetes).

In conclusion, I strongly support the application to conserve *Trichia* Hartmann, 1840 with the following additional or alternative proposals:

The International Commission on Zoological Nomenclature is asked:

(1) to use its plenary power to set aside all previous fixations of type species for the nominal genus *Trichia* Hartmann, 1840 and to designate *Helix hispida* Linnaeus, 1758 as the type species;

(2) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:

  (a) *Capillifera* Honigmann, 1906 (a junior objective synonym of *Trichia* Hartmann, 1840) (Mollusca);

  (b) *Trichia* Nietner, 1861 (a junior homonym of *Trichia* Hartmann, 1840) (Lepidoptera);

  (c) *Trichia* Reuter, 1875 (a junior homonym of *Trichia* Hartmann, 1840) (Heteroptera).

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(2) Gary Rosenberg

The Academy of Natural Sciences, Department of Malacology, 1900 Benjamin Franklin Parkway, Philadelphia, Pennsylvania 19103, U.S.A.

The issue raised by the application of whether names in an ambiregnal group such as Myxomycetes should compete in homonymy with names that are strictly zoological has implications far beyond the status of the name *Trichia*.

Taxa such as Myxomycetes (or Mycetozoa) that are subject to the provisions of both the zoological and botanical Codes of nomenclature can be problematic because the Codes may conflict. For example, in botany the criterion of consistent use of binominal nomenclature applies only to the availability of species-group names, whereas in zoology it applies to all names regulated by the Code. *Trichia* illustrates this problem: botanists attribute the name to van Haller (1768), but his work is non-binominal, with phrases such as 'Trichia brevissime petiolata purpurea' (p. 115), so zoologists must attribute *Trichia* to Hoffman (1790).

Corliss (BZN **52**: 11–17, March 1995) has reviewed the broad issues raised by ambiregnal taxa, so I will restrict myself here largely to the status of names of slime molds. Two provisions of the zoological Code are relevant: Article 1.1.1 states '... the term 'animals' refers to the Metazoa and also to protistan taxa when workers treat them as animals for the purposes of nomenclature ...'. Slime molds are typically studied by mycologists who follow the botanical Code; for that reason they could be considered to be outside the scope of zoological nomenclature. However, Article 2.2 states 'Any available name of a taxon that has at any time been classified as animal continues to compete in homonymy in zoological nomenclature even though the taxon is later not classified as animal'.

Keller (in Parker, 1982, p. 165) classified slime molds as Division Myxomycota of subkingdom Thallobionta within Kingdom Plantae. He stated that they may be 'classified with fungi, following the rules of botanical nomenclature ... or in the kingdom Protista at various taxonomic ranks, following zoological nomenclature'. The Protozoa (= Protista) have also been classified as a subkingdom within the Kingdom Animalia (for example, Parker 1982). Cavalier-Smith (1997) ranked slime molds as phylum Mycetozoa within the Sarcodina, together with phyla Amoebozoa and Rhizopoda, which fall under the zoological Code.

Myxomycetans are generally included in works that index the zoological literature. Of 132 genus-group names that I have found in Myxomycetes, mostly those recorded

by Martin, Alexopoulos and Farr (1983), 100 (76%) are listed in *Nomenclator Zoologicus*. Of the 32 that were missed, uses of 12 can be found in the *Zoological Record* online (1985–1999) and of another seven in *Biological Abstracts* online (1989–1999). Since 90% of myxomycetan genera are recorded in standard indexing sources, homonymy with strictly zoological names is easily detected. I have found seven instances of replacement names being proposed as a result of such homonymy:

Ceratiomyxia Schroeter in Engler & Prantl, 1889 = *Ceratium* Albertini & Schweinitz, 1805 non Schrank, 1793 (Trematoda);

Cribrarula Strand, 1929 (Gastropoda) = *Cribraria* Jousseaume, 1884 non Persoon, 1794;

Dianemina Loeblich & Tappan, 1961 = *Dianema* Rex, 1891 non Cope, 1871 (Pisces);

Hemitrichiella Brandt, 1956 (Gastropoda) = *Hemitrichia* Moellendorff, 1888 non Rostafinski, 1873;

Iyaiyai Evenhuis, 1994 (Diptera) = *Trichia* Hong, 1981 non Hoffman, 1790;

Schenckiella Thalmann, 1942 (Foraminiferida) = *Listerella* Cushman, 1933 non Jahn, 1906;

Tubuliferola Strand, 1917 (Lepidoptera) = *Tubulifera* Spuler, 1910 non Zopf in Schenck, 1885.

Thus, it seems widely accepted that names of Myxomycetes fulfill the requirements of Article 1.1.1. Even if this were not accepted as a general principle, Evenhuis's (1994) action in renaming *Trichia* Hong, 1981 (Diptera) recognised *Trichia* in Myxomycetes as competing in homonymy with names of animals under Article 2.2 (see para. 8 of the application).

There are seven other cases of homonymy between names in Myxomycetes and Metazoa where the junior name is still in use. In three of these cases, the name of the metazoan is preoccupied; in four cases, the name of the myxomycetan:

Collaria Provancher, 1872 (Hemiptera) non Nann-Bremek, 1967;

Cylichnium Dall, 1908 (Gastropoda) non Wallroth, 1833; the synonym *Volvulopsis* Schepman, 1913 is available as a substitute name;

Lepidoderma Reuss, 1855 (Eurypterida) non de Bary in Rostafinski, 1873;

Leptoderma Vaillant, 1886 (Pisces) non Lister, 1913;

Metatrichia Coquillett, 1900 (Diptera) non Ing, 1964;

Reticularia McCoy, 1844 (Brachiopoda) non Bulliard, 1788; the myxomycetan name is a synonym of *Mucilago* Adanson, 1763 but has been proposed for conservation against *Enteridium* Ehrenberg, 1818;

Strongylium Kirby, 1819 (Coleoptera) non Ditmar, 1809. The name of the myxomycetan has never been used according to Lado & Pando (1998).

In addition to these there are at least seven other cases of homonymy in which the junior name is no longer in use for a variety of reasons. A list of these has been given to the Commission Secretariat, together with a list of the 132 genus-group names found for myxomycetans.

As a malacologist I would find it convenient if the name *Trichia* Hartmann, 1840 could be conserved, but I find that the arguments against conserving it are persuasive. As Holthuis pointed out in his comment (BZN 57: 109–110, June 2000), five separate actions are required to conserve the name. While I would not object to the suppression of *Trichia* De Haan, 1839 (Crustacea), I am opposed to ignoring the

homonymy between the myxomycete and molluscan names. Also, I am opposed to emending the spelling of TRICHIINAE Ložek, 1956 (Gastropoda) to TRICHIAINAE, which would be confusing. The priority of TROCHULINAE Lindholm, 1927 is therefore convenient and leads me to prefer the name *Trochulus* Alten, 1812 to *Trichia* Hartmann, 1840. If the molluscan *Trichia* were split into two separate genera for taxonomic reasons there could be no objection to learning a new generic name for some of the species. I do not see that the inconvenience will be much greater in learning a new generic name for all the species currently in *Trichia*.

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Comment on the proposed designation of *Buprestis nitida* Rossi, 1792 (currently *Anthaxia fulgurans* (Schrank, 1789)) as the type species of *Anthaxia* Eschscholtz, 1829 (Insecta, Coleoptera)

(Case 3118; see BZN **57**: 97–99)

Chuck Bellamy

Department of Entomology, Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, California 90007, U.S.A.

I should like to support the application by Dr Bílý to designate the nominal species *Buprestis nitida* Rossi, 1792 (a synonym of *B. fulgurans* Schrank, 1789) as the type species of *Anthaxia* Eschscholtz, 1829. Dr Bílý's world catalogue of the genus (Bílý, 1997) is the authoritative source for the established concepts of *Anthaxia* and its subgenera, and acceptance of his application would be in the interests of stability. To follow any of the early type designations (see para. 2 of the application) would upset the modern definition of a very large genus in which relationships are only now becoming understood.

It is worth noting that besides *Anthaxia* there are other genus-group names in the BUPRESTIDAE which might be affected by type designations made by Duponchel (in d'Orbigny, 1842) or by Desmarest (in Chenu, 1860); such designations may have been overlooked, because no complete list of type species in this family has been published.

Commment on the proposed conservation of *Orsodacne* Latreille, 1802 (Insecta, Coleoptera) by the designation of *Chrysomela cerasi* Linnaeus, 1758 as the type species

(Case 3103; see BZN **57**: 94–96)

Chris Reid

CBCR, Australian Museum, 6 College Street, Sydney, NSW 2000, Australia

In his application Hans Silfverberg has presented a compelling case for setting aside the original type species fixation, by monotypy, of the genus *Orsodacne* Latreille, 1802.